CWA NPDES Notice of Violations (NOVs)

ROUTING AND TRANSMITTAL SLIP — Date: 5/16/2014

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. Ammons	BA	5/16/14
2. Mattox (Tracking)		
3. White/Horsey copy [illegible]	[illegible]	5-19-14 / 5/20/14
4. Bush	[illegible]	6/[illegible]
5. ~~Sr. Attorney and/or Chief OWLs~~		
6. Ricks/Diaz GR 6-26-14	[illegible]	6/25/14
7. Marcus/Giattina Dm 6/26	[illegible]	6/27/14
8. White (Mailing/e-filing) / Mattox (Copy)		
9. Ammons		

	Action		File		Note and Return
X	Approval		For Clearance		Per Conversation
	As Requested		For Correction		Prepare Reply
	Circulate		For Your Information		See Me
	Comment		Investigate	X	Signature
	Coordination		Justify		

From: (Name, org. symbol, Agency/Post)	Room No.—Bldg.
Ammons	Phone No. 2-9769

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions.

REMARKS:
NOV for violations of the EPA-issued NPDES permit discovered during EPA's annual Compliance Evaluation Inspection (CEI) of the Central District WWTP in Miami, FL.

Electronic Version Saved on: See concurr. pg.

Contacted State Agency: Y/N (Y circled) Date: 5/16/2014 Who at State: Michael Hamber (SE District Office)

~~Route in six part folder~~

OPTIONAL FORM 41 (Rev. 1-94)
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T:\1 CWEB\Administrative\Enf. Routing Slips\FY14 routing slips\Notice of Violations

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

JUN 30 2014

CERTIFIED MAIL 7012 1010 0002 0759 5406
RETURN RECEIPT REQUESTED

Mr. Bill Johnson
Director, Miami-Dade Water & Sewer Department
Miami-Dade County
3071 Southwest 38th Avenue
Miami, Florida 33146

Re: Compliance Evaluation Inspection of the Central District Wastewater Treatment Plant
Notice of Violation
National Pollutant Discharge Elimination System Permit No. FL0024805

Dear Mr. Johnson:

The U.S. Environmental Protection Agency Region 4 conducted a Compliance Evaluation Inspection (CEI) of Miami-Dade County's Central District Wastewater Treatment Plant on May 1, 2014, and May 2, 2014. This CEI was conducted because the EPA issued the NPDES Permit for the discharge from this facility and therefore, the EPA is required to conduct an annual inspection pursuant to 40 C.F.R. § 123.26.(e)(5). Enclosed are the CEI report and photographs taken during the CEI.

The EPA's inspection noted several National Pollutant Discharge Elimination System (NPDES) Permit violations. Specifically, Miami-Dade County violated Part II, Section B.1. of the above-referenced NPDES Permit related to proper operation and maintenance (O&M) as outlined in the enclosed CEI report. As stated in an email from Richard O'Rourke of your staff dated June 10, 2014, all of the violations of the proper O&M provision noted in the enclosed CEI report already have been resolved or will be resolved by July 15, 2014, with the exception of rehabilitation of the sludge digesters (both Plant 1 and 2) and the concrete/structural building repairs throughout the WWTP. The digesters and the structural/concrete repairs will be repaired/replaced pursuant to the deadlines in the Consent Decree. In addition, Miami-Dade County violated Part II, Section C.2. of the above-referenced NPDES Permit related to representative sampling as more specifically set forth in the enclosed CEI report. According to your staff, the influent automatic sampler tubing in Plant 2 that caused the violation of Part II, Section C.2. of the above-referenced NPDES Permit was replaced prior to June 9, 2014, and is now inspected weekly. The EPA expects that the MOM Programs set forth in the new Consent Decree (specifically, the WWTP O&M Program and some of the Appendix D projects), once they are developed and implemented, will prevent similar foreseeable violations in the future.

If you have specific questions regarding either this Notice of Violation or the CEI, please contact Mr. Brad Ammons at (404) 562-9769 or via email at ammons.brad@epa.gov.

Sincerely,

James D. Giattina
Director
Water Protection Division

Enclosures

cc: Mr. Michael Hambor
Florida Department of Environmental Protection
West Palm Beach

Mr. Francois Saint-Phard
Miami-Dade County Water and Sewer Department

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 4
Water Protection Division
Clean Water Enforcement Branch

COMPLIANCE EVALUATION INSPECTION REPORT

Miami-Dade County, Florida
Water and Sewer Department
Central District (Virginia Key) Wastewater Treatment Plant
Miami, Florida
NPDES Permit No. FL0024805

Facility Address:
3989 Rickenbacker Causeway (Virginia Key)
Miami, Florida 33149

Inspection Date:
May 1-2, 2014

Inspectors:
Brad Ammons, Environmental Engineer, EPA Region 4
David Phillips, Environmental Engineer, EPA Region 4

Inspection Report Prepared by:
Brad Ammons
David Phillips

June 11, 2014

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ABBREVIATIONS AND ACRONYMS

$CBOD_5$	Carbonaceous Biochemical Oxygen Demand, 5-day
CWA	Clean Water Act
DMR	Discharge Monitoring Report
EPA	United States Environmental Protection Agency
MGD	Million Gallons per Day
NPDES	National Pollutant Discharge Elimination System
RAS	Return Activated Sludge
TSS	Total Suspended Solids
WASD	Miami-Dade County Water and Sewer Department
WCTS	Wastewater Collection and Transmission System
WWTP	Wastewater Treatment Plant

COMPLIANCE EVALUATION INSPECTION REPORT

Compliance Evaluation Inspection of the Miami-Dade County Central District WWTP, May 1-2, 2014

Miami-Dade County, FL

Central District WWTP

EPA Region 4

Compliance Evaluation Inspection

Thursday, May 1, 2014

Time of Entry: 12:20 PM.

OPENING CONFERENCE

The following people were in attendance during the opening conference before the Miami-Dade County (Miami-Dade) Central District WWTP walk-through:

EPA Region 4	Miami-Dade County WASD
Brad Ammons	Francois Saint-Phard (WWTP Supervisor)
David Phillips	

The EPA representatives and Francois Saint-Phard (WWTP Supervisor) began the opening conference by discussing what process units and equipment were out of service. Mr. Saint-Phard stated that the following units were out of service during this inspection:

Plant 1:

(1) Southern influent grit chamber (no flow was being sent through this flume during inspection);
(2) Final settling tank (clarifier) #1 was out of service for routine cleaning and resealing;
(3) Final settling tank (clarifier) #5 experienced a broken skimmer chain (Mr. Saint-Phard expected this settling tank to be back in service by June 5th);
(4) Sludge digester #1.

Plant 2:

(1) Aeration tank #2 was out of service for routine cleaning and resealing;
(2) Final settling tank (clarifier) #4 was out of service for routine cleaning (Mr. Saint-Phard expected this settling tank to be placed back into service on May 2nd);
(3) Sludge digesters #1-4 (entire cluster #1) were out of service.

Mr. Saint-Phard noted that the flushing system in both plants is being replaced, and that is on schedule to be completed soon. Biosolids (sludge) handling is the large concern at present. Mr. Saint-Phard noted that replacing the current 4 sludge transport trucks is still a need. Several new sludge transport trucks are in the process of being ordered and Mr. Saint-Phard has been told to expect them by mid-summer. Mr. Saint-Phard also noted the improvement to effluent because the North District WWTP's primary sludge now goes straight to the Central District WWTP's sludge concentrators instead of through the headworks and treatment processes.

The WWTP lost 1/3 of its oxygen production capacity (oxygen production tank #1) the week prior to this inspection. As a temporary remedy, Miami-Dade contracted and trucked in liquid

oxygen at a rate of 4 loads per day last week (approximately $4,000/load). The standby oxygen production tank was to be placed back into service today (May 1st). Tanks #3 (newer) and tank #2 (older) were currently being used for oxygen production.

Mr. Saint-Phard also noted that the pump station magnetometers have been changed at pump stations #1 and #2, that there are new flow meters at each of the 4 influent grit chambers, that there are five new automatic samplers on site, and that the effluent pump station instrumentation has been updated since EPA's April 2013 inspection. In addition, all settling tanks (clarifiers) have been or are in the process of being cleaned. The Vactor trucks for this WWTP have been out of service for several weeks.

Mr. Saint-Phard has been seeking contractor assistance to clean and coat the final settling tanks so that staff can be used to perform routine maintenance. There are 8-9 structural repair specialists in the Water and Sewer Department to perform concrete repairs and sand blasting. He has observed new items that were not protected needing to be replaced in a year. He would like to use his staff for that sort of work instead of larger design and construction projects since he sees it is a more abundant need.

EFFLUENT PUMP STATION
Time of Entry: 1:10 PM

The EPA observed that the effluent automatic sampler had been moved. The interior thermometer temperature was 4° Centigrade. In addition, Miami-Dade has installed effluent pH, Turbidity, Dissolved Oxygen and Residual Chlorine meters, which were all in service at the time of this inspection. *See enclosed photos.*

CENTRAL DISTRICT WWTP PLANT #1
OBSERVATIONS/VIOLATIONS/DEFICIENCIES
Time of Entry: 1:29 PM

Flows enter Plant 1 of the Central District WWTP from the mainland/downtown Miami via the 4th Street Pump Station and the 9th Street Pump Station through either the 72" or the 102" joint force mains. Plant 1's southern influent aerated grit chamber was out of service during the inspection and no flows were being sent through this chamber during this inspection. Sand and grit that is not removed will end up settling in the oxygenation tanks of Plant 1, causing less capacity and contact time in the oxygenation tanks, as well as increased operation and maintenance costs.

> **Violation/Recommendation:** Part II, Section B.1. of the EPA-issued NPDES permit requires the permittee to "...at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit." Miami-Dade violated this permit condition due to the grit chamber being non-operational. Due to the increased load of grit/sand in the downstream treatment units, Miami-Dade WASD should keep both grit chambers in Plant 1 in operation at all times, as well as implement the necessary grit chamber/headworks improvements pursuant to the deadlines in the new

Consent Decree [NOTE: According to an email from Miami-Dade staff on June 10, 2014, this grit chamber is scheduled to be repaired and placed back into service by July 15, 2014].

Hauled waste is no longer being accepted at this WWTP. Miami-Dade has requested all waste haulers to take their loads to the County's South District WWTP.

Flow into Plant 1 was observed to be 35.2 MGD (through the north grit chamber) at 1:31 pm. The EPA noted the new influent flow meters at both flumes; *see enclosed photo*. Mr. Saint-Phard stated that they had completed adjusting weirs that now prevents submersion of the grit chamber flumes. The concrete in the influent chamber was still in bad shape, as it was during the September 2011, April 2012 and April 2013 EPA inspections.

Deficiency/Recommendation: Structural/concrete issues were noted in several areas of Plant 1. Structural/concrete issues pose safety hazards for WWTP staff. Miami-Dade should address all of the structural/infrastructure issues within Plant 1 pursuant to the deadlines in the new Consent Decree.

All of the oxygenation tanks in Plant 1 were operational during this inspection.

As noted above, final settling tank #1 was offline for routine cleaning and resealing and final settling tank #5 was offline due to a broken skimmer chain. The EPA observed less scum as well as less algae on the weirs in the final settling tanks than during previous inspections. In addition, the EPA observed both algae and very large floatables/debris (e.g., plastic trash, floatable balls) impeding proper weir operation, large amounts of pin floc and large algae mats being discharged. While debris and trash appeared to be less than in previous inspections, the amount of pin floc and large algae mats being discharged out the ocean outfall were greater than seen in the past and are a concern. *See enclosed photos.*

Violation/Recommendation: Part II, Section B.1. of the EPA-issued NPDES permit requires the permittee to "...at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit." Miami-Dade violated this provision due to final settling tank #5 being offline due to a broken skimmer [NOTE: According to an email from Miami-Dade staff on June 10, 2014, final settling tank #5 was repaired and placed back into service on May 14, 2014 and final settling tank #1 is scheduled to be back in service by July 15, 2014].

Additionally, previous EPA inspections have noted similar trash, floatables, pin floc and algae in the final settling tanks/secondary clarifiers. Miami-Dade WASD appears to be implementing a regularly-scheduled cleaning of the weirs and effluent troughs between tanks, but should consider a Standard Operating Procedure (SOP) to capture larger algae mats as solid waste when cleaning weirs and/or effluent troughs and prevent their passage into the effluent channel [NOTE: According to an email from Miami-Dade staff on June 10, 2014, WWTP staff now catch larger debris/algae with pool nets when washing down weirs].

In addition, Miami-Dade should explain why the settling tanks are experiencing such large amounts of pin floc that is being discharged (e.g. sludge age and/or blanket depths; not enough sludge wasting due to out of service sludge digesters, etc.). All of the trash, floatables, algae and floc are likely to be discharged through the outfall into the Atlantic Ocean [NOTE: According to an email from Miami-Dade staff on June 10, 2014, the WWTP Operator is now keeping a low sludge blanket to prevent pin floc from being discharged].

Mr. Saint-Phard showed the EPA the ultrasonic sludge blanket depth monitor in final settling tank #5C that was installed after the demonstration project in final settling tank #6 noted in EPA's April 2013 inspection. Mr. Saint-Phard noted that he was still waiting on the electrician to complete installation of the new monitor. *See enclosed photo.*

The EPA noted that the fiberglass grating over the scum trough of the final settling tanks was worn and Mr. Saint-Phard stated that these grates are to be replaced by aluminum grating soon; *see enclosed photo* [NOTE: According to an email from Miami-Dade staff on June 10, 2014, these grates were replaced by the end of May 2014]. In addition, the EPA noted several locations in the walkways between the final settling tanks that had structural cracks in the concrete all the way through the walkway.

Deficiency/Recommendation: The structural cracks in the walkways may present a safety hazard to workers and compliance inspectors should the walkways fail while in use. Miami-Dade should thoroughly inspect and address walkways with structural risks and implement all structural repairs pursuant to the deadlines in the new Consent Decree.

Plant 1's primary anaerobic sludge digester #1 experienced a roof collapse on September 5, 2011 and was still out of service during this inspection. The EPA did not enter the sludge digester control buildings, but Mr. Saint-Phard stated that the structural building issues were the same as observed during EPA's previous inspections.

Violation/Recommendation: Part II, Section B.1. of the EPA-issued NPDES permit require the permittee to "...at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit." The increasing sludge digester rehabilitation needs, including but not limited to, digester covers, as well as control equipment/pumps and buildings, will likely put further stress on Plant 1 and could potentially cause solids backup into the effluent if not addressed soon. Miami-Dade should address the Plant 1 sludge digesters pursuant to the deadlines in the new Consent Decree.

CENTRAL DISTRICT WWTP PLANT #2 OBSERVATIONS/VIOLATIONS/DEFICIENCIES

Time of Entry: 2:23 pm

Flows enter Plant 2 of the Central District WWTP from either Miami Beach (via 54" force main under Government Cut) or from Key Biscayne (via 24" force main). As noted in previous inspections, the influent from Miami Beach does not receive any screening.

No concrete/structural improvements were noted in the influent grit building. There were 2 influent automatic samplers present during this inspection in the grit building. Mr. Saint-Phard stated that the sampler being used for reporting on the DMR (ISCO 5800) was the one in the rear, which had been calibrated on 3/16/2014. The sampler readout indicated that the sample tubing needed to be replaced. The intake tubing was observed to be consumed with solids, and the pump outtake tubing contained algae. The sampler readout indicated the refrigerator was 1.4° Centigrade and it had been recorded as 2.0° Centigrade earlier that day on the temperature log. The interior manual thermometer was not checked. *See enclosed photos*.

> **Violation/Recommendation:** Part II, Section C.1. of the EPA-issued NPDES permit requires Miami-Dade to take representative samples. The dirty pump tubing on the Plant #2 influent automatic sampler adds pollutants to the influent sample, resulting in a non-representative sample that can impact percent removal results. Miami-Dade should replace the influent sampler tubing as soon as possible [NOTE: According to an email from Miami-Dade staff on June 10, 2014, this automatic sampler tubing was replaced prior to the email and is inspected weekly].

The influent flowrates for Plant 2 were observed to be 38.94 MGD (north grit flume) and 31.45 MGD (south grit flume) for a total Plant 2 flow of 70.39 MGD. These flowrates were observed on the new flow meters at each grit chamber at approximately 2:23 pm. The influent flow from Miami Beach only was observed to be 34.5 MGD at approximately 2:25 pm. The Miami Beach flow meter is locked and is under the control of the City of Miami Beach. The City has placed a sticker on the meter stating that the paper recorder is a percentage of flow, not the actual flow (similar to the effluent flow meter of this WWTP).

While at the grit chambers for Plant #2, the EPA inquired about the generators for the WWTP that are south of the grit chambers. Mr. Saint-Phard stated that the generators were upgraded to external radiators (foreground in photo) about 8 years ago, but that the radiators were never connected to the engines. Miami-Dade is now in the process of trying to rehabilitate the generators. *See enclosed photo*.

Three of the four oxygenation tanks were in service during this inspection. Oxygenation tank #2 was out of service for cleaning and maintenance during this inspection [NOTE: According to an email from Miami-Dade staff on June 10, 2014, this oxygenation tank has been cleaned and maintained and is now on standby and is ready to be placed in service when needed].

Mr. Saint-Phard stated that the influent trough to the final settling tanks had been cleaned since the EPA's April 2013 inspection. The EPA noted that the 5 Return Activated Sludge (RAS)

pump buildings had been painted, as well as the sludge digester clusters #1, 3 and 4 (i.e. sludge digester #s 1-4, 9-12, and 13-16). While the EPA did not observe any items that would be screened out of the wastewater by bar screens (e.g. cloths, rags, etc.) that had been noted in previous inspections, the EPA still recommends that Miami-Dade consider requiring the City of Miami Beach to install bar screens at its pump station similar to the bar screens on Miami-Dade's 4th Street pump station and/or installing bar screens at the headworks of Plant 2.

Final settling tank #4 was out of service for routine cleaning. Mr. Saint-Phard explained that the cross-collector which draws solids from the passes, had not been used in the past. When this final settling tank was taken offline for routine maintenance, it was noted that the debris in the cross collection trough prevented the cross-collection arms from being used. The cross-collection trough had been cleaned out prior to this inspection and Mr. Saint-Phard reiterated that this tank would be placed back into service the following day [NOTE: According to an email from Miami-Dade staff on June 10, 2014, this final settling tank (#4) was placed back in service prior to the email]. Final settling tank #6 was observed to have been resealed prior to this inspection. *See the enclosed photos.*

In the final settling tanks/secondary clarifiers, the EPA observed some algae and large floatables, trash/debris (e.g., plastic trash), unsettled floc and large amounts of pin floc. In addition, the EPA observed some large algae bricks being discharged out of the effluent trough of the final settling tanks. *See the enclosed photos.*

> **Violation/Recommendation:** Part II, Section B.1. of the EPA-issued NPDES permit requires the permittee to "...at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit." Previous EPA inspections have noted similar trash, floatables, algae and pin floc in the final settling tanks/secondary clarifiers. While less of these items were noted than in previous inspections and Miami-Dade WASD appears to be implementing a regularly-scheduled cleaning of the weirs and effluent troughs between tanks, Miami-Dade should consider a SOP to capture larger algae mats as solid waste when cleaning weirs and/or effluent troughs and prevent their passage into the effluent channel [NOTE: According to an email from Miami-Dade staff on June 10, 2014, WWTP staff now catch larger debris/algae with pool nets when washing down weirs].
>
> Finally, Miami-Dade should explain why the final settling tanks are experiencing such large amounts of pin floc that is being discharged (e.g. sludge age and/or blanket depths; not enough sludge wasting due to out of service sludge digesters, etc.) through the outfall into the Atlantic Ocean [NOTE: According to an email from Miami-Dade staff on June 10, 2014, the WWTP Operator is now keeping a low sludge blanket to prevent pin floc from being discharged].

The EPA noted several locations in the walkways between the final settling tanks that had structural cracks in the concrete all the way through the walkway.

Deficiency/Recommendation: The structural cracks in the walkways may present a safety hazard to workers and compliance inspectors should the walkways fail while in use. Miami-Dade should thoroughly inspect and address walkways with structural risks and implement all structural repairs pursuant to the deadlines in the new Consent Decree.

The EPA did not inspect the sludge digester control buildings, but Mr. Saint-Phard stated that they were in the same condition as they were during the EPA's April 2013 inspection.

Violation/Recommendation: Part II, Section B.1. of the EPA-issued NPDES permit requires the permittee to "...at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit." The increasing sludge digester rehabilitation needs, including but not limited to, digester covers, as well as control equipment/pumps and buildings, will likely put further stress on Plant 2 and could potentially cause solids backup into the effluent if not addressed soon. Miami-Dade should address the Plant 2 sludge digesters pursuant to the deadline in the new Consent Decree.

SLUDGE DEWATERING BUILDING OBSERVATIONS/DEFICIENCIES

Ferric Chloride is fed into a valve box outside the Sludge Dewatering Building (prior to adding polymer) to decrease struvite creation. Two ferric chloride tankers in temporary containment were observed outside of the sludge dewatering building. Mr. Saint-Phard stated that a permanent ferric chloride building is in the works, but the contractor had been delayed in getting the necessary permits. Evidence of ferric chloride runoff to a nearby storm drain (that drains to the headworks of Plant 2) was observed. *See enclosed photos.*

Mr. Saint-Phard stated that most of the new sludge pumps that had been observed in the dewatering building in EPA's previous inspections had been installed. The EPA did not enter the sludge dewatering building, but Mr. Saint-Phard stated that the sludge truck loading ceiling structural issues were the same as during the EPA's April 2013 inspection.

Deficiency/Recommendation: As discussed above for the sludge digester control buildings, the influent grit buildings and the final settling tanks, structural and concrete issues pose safety hazards for WWTP staff and could potentially impact treatment efficiency and/or effluent quality. Miami-Dade should implement all structural rehabilitation pursuant to the deadlines outlined in the new Consent Decree.

Time of Exit: 3:45 PM.

Miami-Dade County, FL
Central District WWTP
EPA Region 4
Compliance Evaluation Inspection
Friday, May 2, 2013

Time of Entry: 9:45 am

EPA Region 4	Miami-Dade County WASD
Brad Ammons	Yvonne Walton (WWTP Lab Supervisor)
David Phillips	

RECORDS REVIEW

The EPA reviewed the records for August 2013 and January 2014. Issues or concerns are outlined below.

January 2014 records concerns:

(1) There appears to be operational difficultly in feeding the sludge digesters when needed;
(2) The effluent flow chain of custody log requires that handheld pH be taken at least once per day to verify the two automated readings. Ms. Walton noted that the handheld meter is calibrated in the lab (documented) and then the operator goes to the effluent station and uses the meter without turning it off. The log suggested that many days this verification is not being recorded (e.g., January 16, 17, 18, 19, 21, 23, 24, and 25);
(3) In some cases, the waiver was greater than ±0.1 unit which is outside the tolerance allowed by Method 4500-H+ B (Standard Methods, 21st Edition). For example, on 1/31/2014, 2nd shift, the handheld pH meter was recorded as 6.5 s.u. and both inline meters read 6.2. Either the handheld or the inline meters were out of calibration. Documentation that this was identified and corrected was not found with the record. NOTE: The EPA documented that the inline pH meter was calibrated in April 2014;
(4) Also the Chain of Custody/log form does not include documentation of the time the sample is pulled and the time the handheld pH reading is taken. If this is also being recorded in the laboratory then that is acceptable, but there need to be a means of verifying the pH holding time is 15 minutes or less. One option might be to put this information on the back of the log form;
(5) From 12/19/2013 to 3/3/2014, the water purification system in the lab was out of service and one was on order. During that period, the lab purchased distilled water and used this for activities including the dilutions for the $CBOD_5$ testing.

August 2013 records concerns:

(1) The records indicate that sludge digester cluster #2 (Plant 2) was taken offline this month;
(2) The effluent flow chain of custody log requires that handheld pH be taken at least once per day to verify the two automated readings. Ms. Walton noted that the handheld meter is calibrated in the lab (documented) and then the operator goes to the effluent station and

uses the meter without turning it off. The log suggested that this verification was not done at all in August 2013;

(3) The Chain of Custody/log form does not include documentation of the time the sample is pulled and the time the handheld pH reading is taken. If this is also being recorded in the laboratory then that is acceptable, but there need to be a means of verifying the pH holding time is 15 minutes or less. One option might be to put this information on the back of the log form;

(4) While better than observed in previous EPA inspections, the chain of custody forms are still not completely signed and/or dated/timed by Miami-Dade employees who are either collecting and transporting the samples (e.g. August 16, 24, and 28, 2013 samples) or receiving the sample at the laboratory (e.g. August 26, 29 and 30, 2013 samples).

EXIT CONFERENCE

Time started: approximately 11:35 am.

Attendees: The following people attended the exit conference for this inspection.

EPA Region 4	Miami-Dade WASD
Brad Ammons	Francois Saint-Phard (WWTP Operator)
David Phillips	Richard O'Rourke
	Yvonne Walton (WWTP Lab Supervisor)

The EPA began the exit conference by stating that overall, the effluent appeared to be in better condition that during the April 2013 inspection and that many process monitoring improvements have been made. The EPA noted the following specific violations and/or concerns that were observed during this inspection.

- Rehabilitation of the oxygen production plant (Tank #1);
- Sludge digestion capacity may soon cause 40 C.F.R. § 503 violations or at the very least, cause Miami-Dade to have to consider other sludge disposal options;
- Placing final settling tanks back online prior to rainy season;
- Need for new sludge hauling trucks;
- Plant 2 influent automatic sampler tubing needs replacement;
- Significant pin floc and/or algae, as well as minor trash, noted in the final settling tanks/secondary clarifiers or on weirs;
- SOP for weir cleaning in the final settling tanks to capture the larger algae mats/bricks;
- Minor foam in the effluent;
- Ferric chloride spills to the storm drain nearby;
- Structural building/walkway issues (e.g. walkways between final settling tanks; sludge digester cluster control buildings; influent grit chamber buildings; etc.);
- Sampling recordkeeping (e.g. recording date/time of sample and date/time of pH analysis on chain of custody);

- Procurement process timeframes (e.g. length of time to purchase and receive new sludge hauling trucks and length of time for the WWTP laboratory to purchase and receive a new water purifier);

Mr. Saint-Phard was well aware of the more immediate needs of the WWTP (i.e. getting the oxygen production tank back online; getting the final settling tanks back online prior to rainy season; and sludge handling issues (both capacity + the need for new sludge hauling trucks)). Ms. Martin stated that the operators calibrate the hand-held pH meter in the laboratory and do not shut it off until they analyze the pH at the effluent pump station. She also stated that a log book that documents this calibration process is kept in the laboratory. The other issues above were further discussed briefly.

Time of exit: approximately 12:00 pm.

Miami-Dade Central District WWTP (EPA; 5/1/2014)

pH meter (left); Turbidity/Dissolved Oxygen meter (right) at effluent pump station

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Residual Chlorine meters at effluent pump station

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, new flow meter (northern grit chamber)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #6C (heavy pin floc discharge)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #6C (algae on weir blocking flow and into discharge)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #5 (broken chain + collapsed scum/solids flights)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

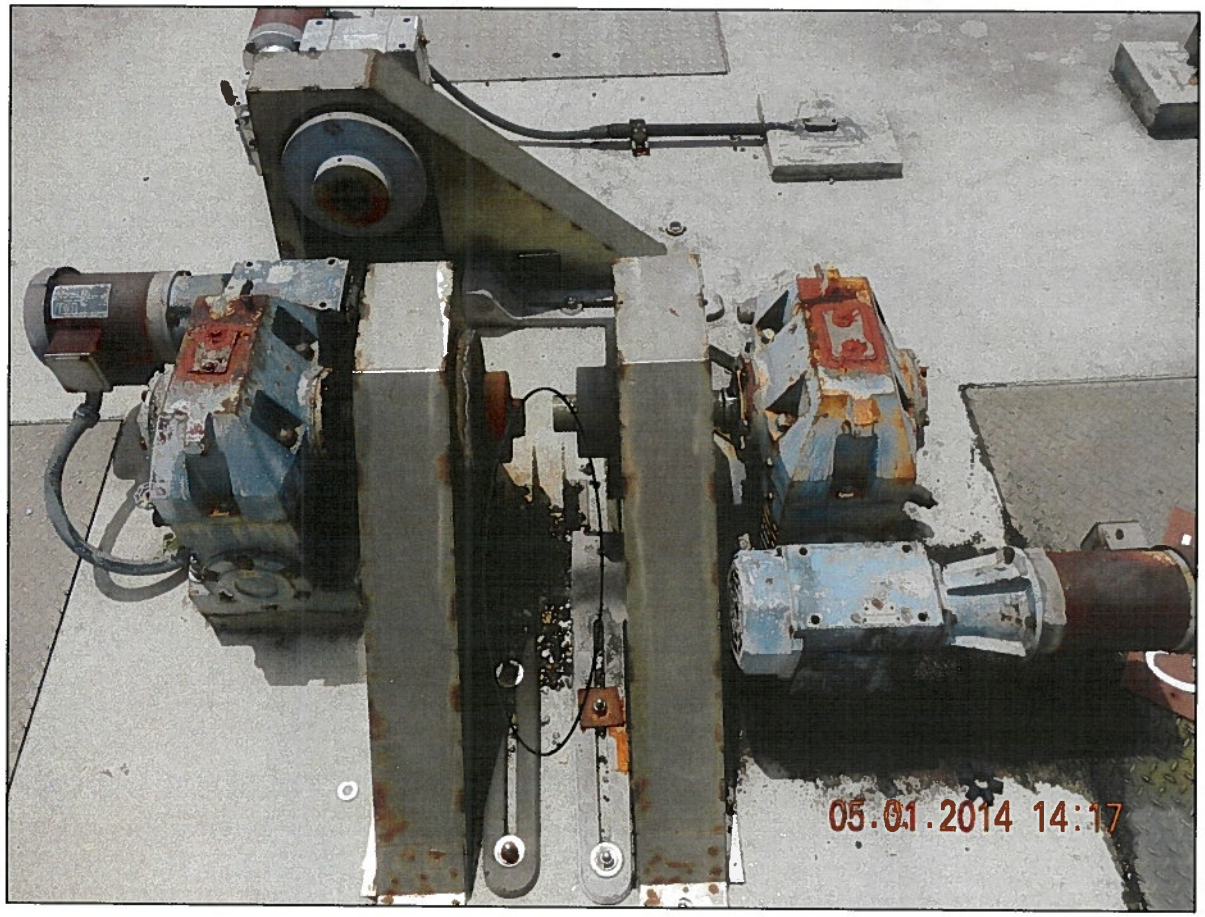
Plant 1, Final Settling Tank #5C (black sealant on wall eroded)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Sludge blanket meter at Final Settling Tank #5C awaiting electrical connection

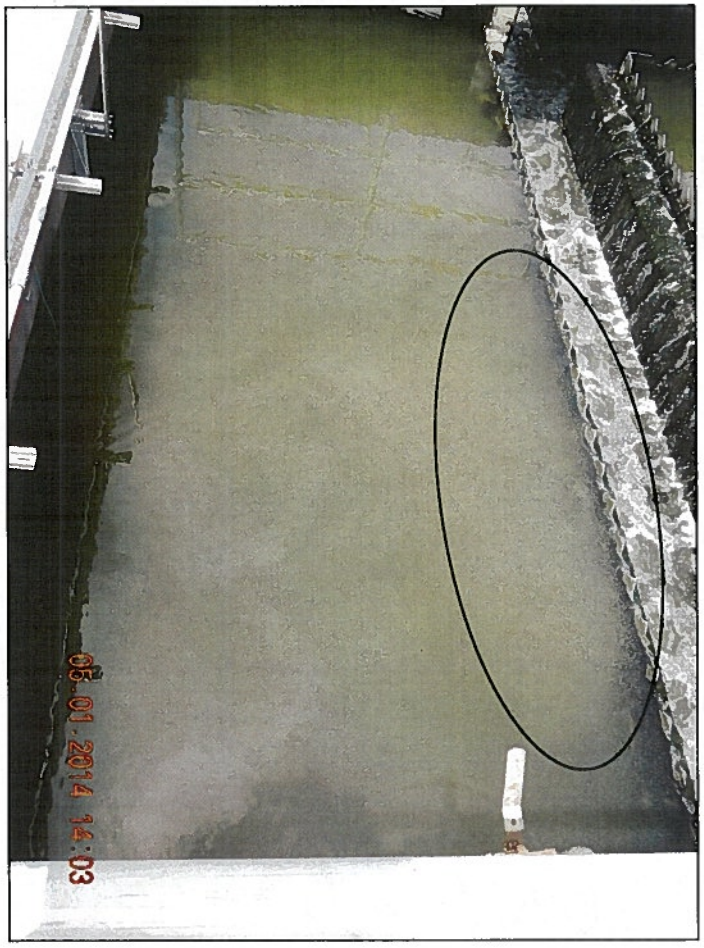
Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #5B/C skimmer motor (note grit/rocks)



Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #3B (heavy pin floc)



Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #3B west (debris on weir + heavy pin floc)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

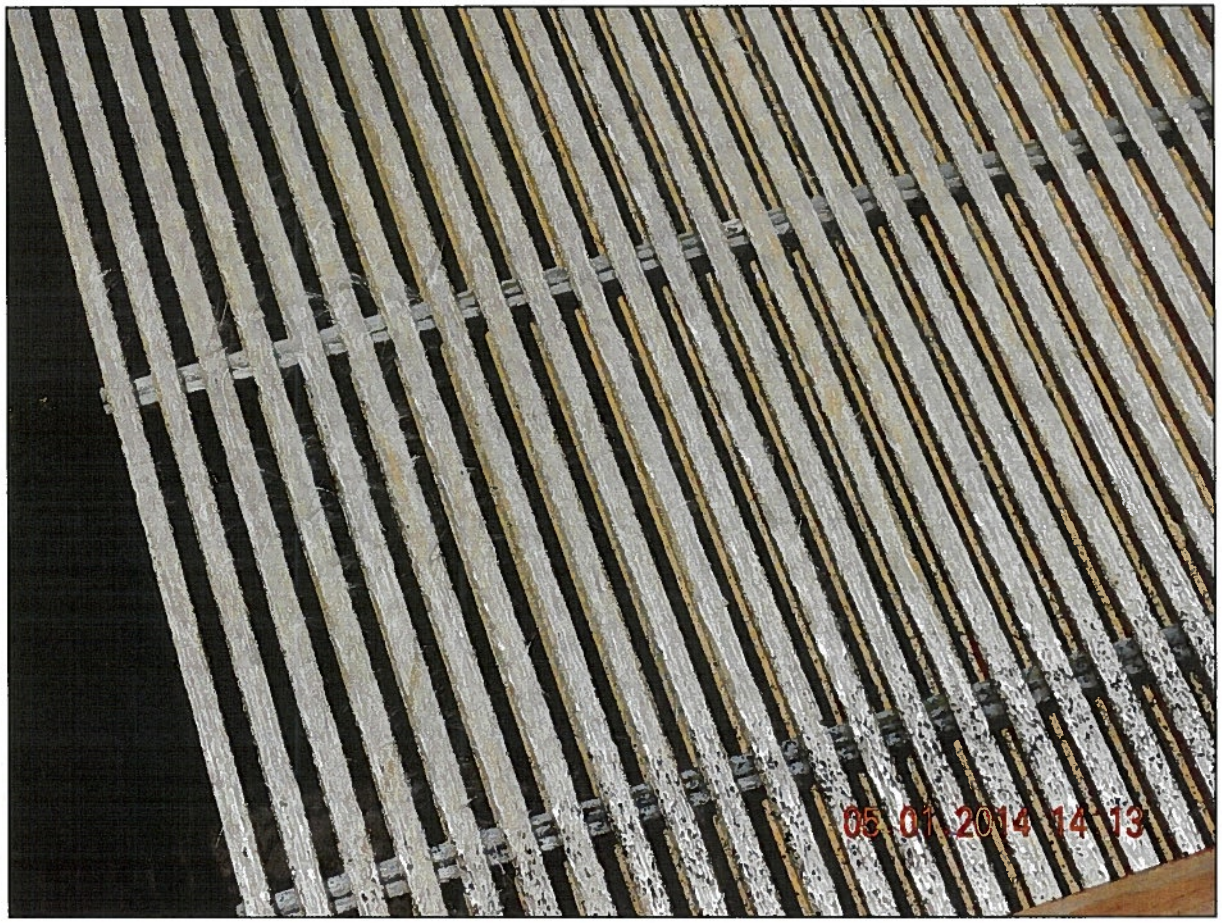
Plant 1, Final Settling Tank #3C skimmer wall (foliage growing through crack in wall)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #1B (recently cleaned and recoated)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank #1 scum trough fiberglass grate

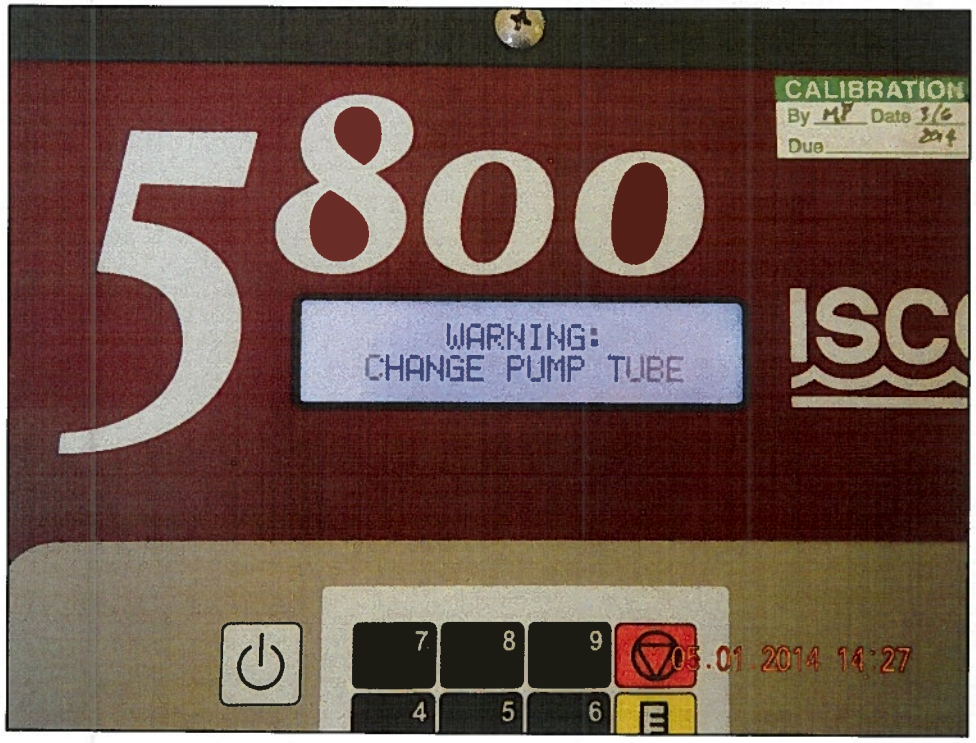


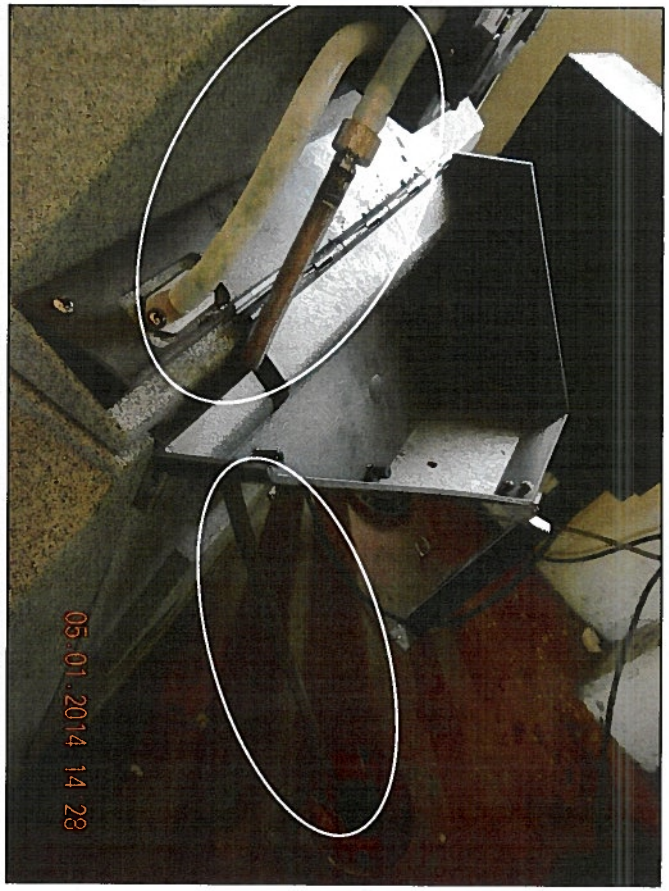
Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 1, Final Settling Tank effluent near #1A (large algae bricks in discharge)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, influent automatic sampler (error display + dirty tubing)





Miami-Dade Central District WWTP (EPA; 5/1/2014)

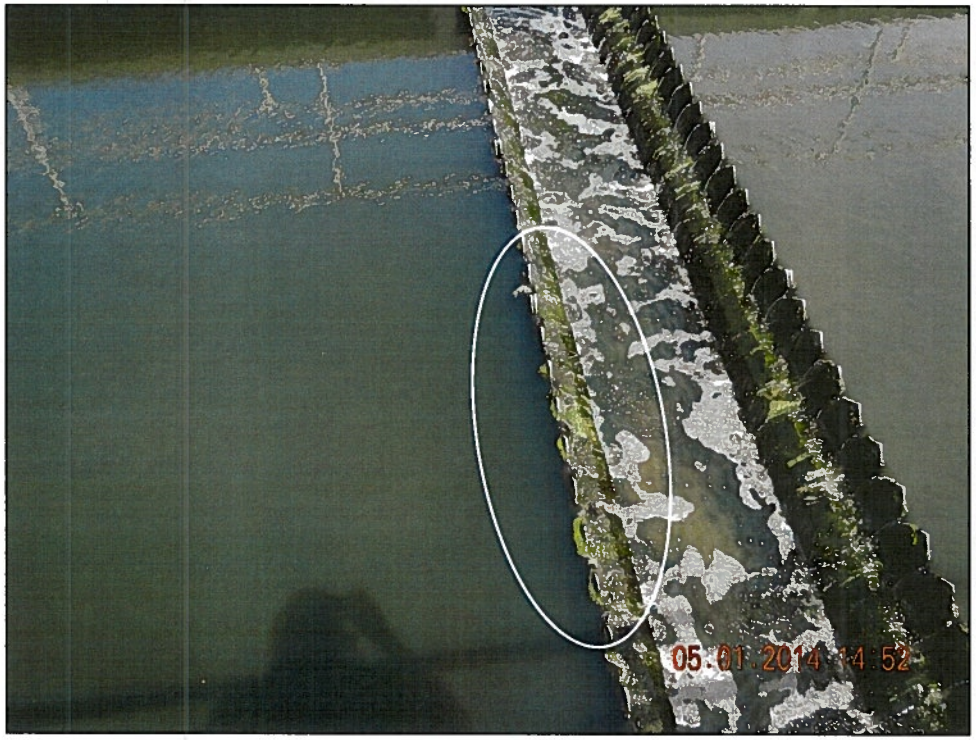
WWTP generators (background) + external radiators (foreground)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, Final Settling Tank #4 (cross collector under repair(L) and foliage in wall (R))

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, Final Settling Tanks #5B (L) and #8C (R) (debris at weirs)

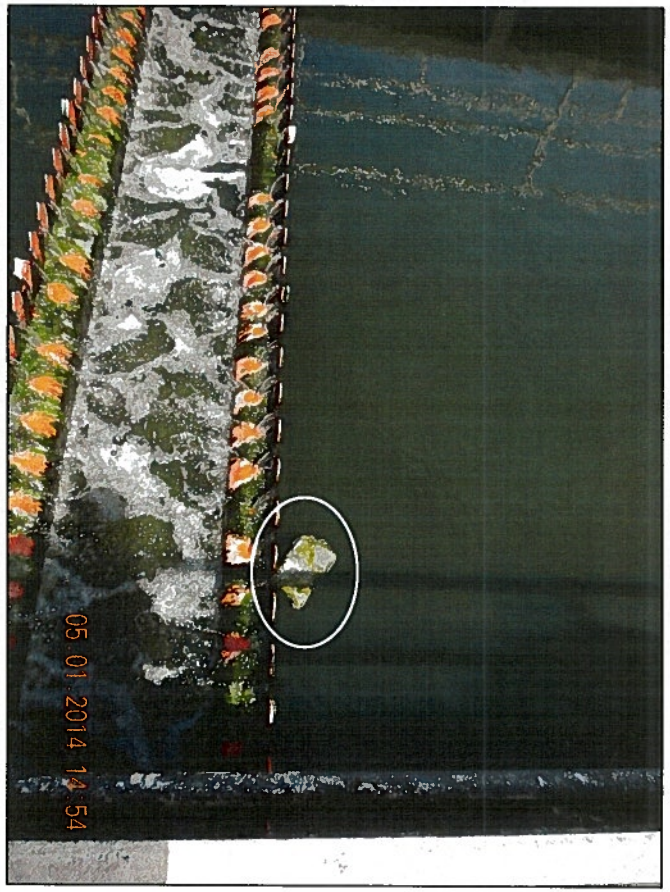


Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, Final Settling Tank #6A (debris blocking weirs)

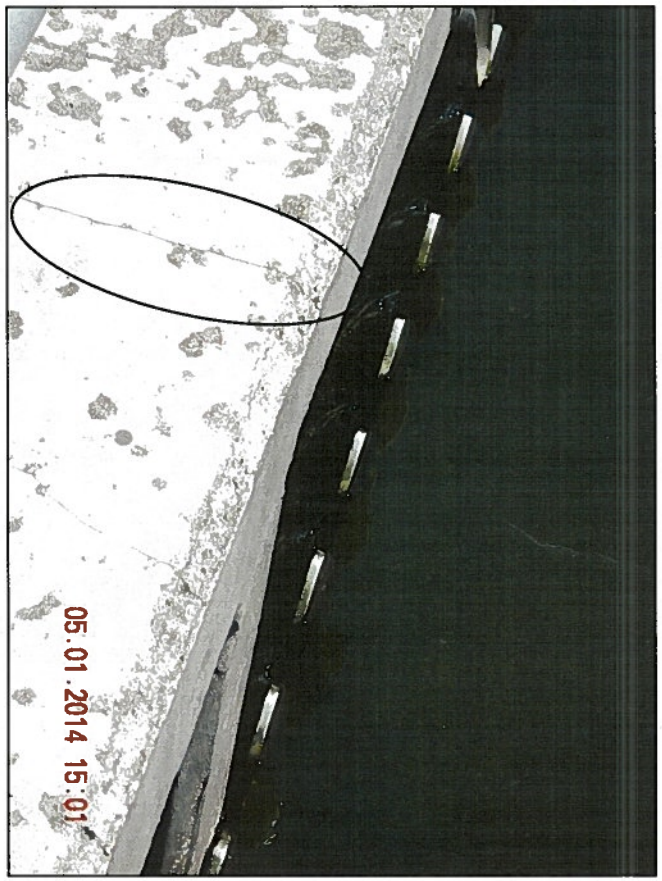
Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, Final Settling Tanks #6A (L) and #7C (R) (Chip bag + debris at weirs)



Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, Final Settling Tank #6C/7A walkway (note crack through walkway)



Miami-Dade Central District WWTP (EPA; 5/1/2014)

Sludge Dewatering Ferric Chloride tankers (drain to storm drain)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, effluent trough at Final Settling Tank #10C (algae bricks)

Miami-Dade Central District WWTP (EPA; 5/1/2014)

Plant 2, Final Settling Tank #10C (2 plastic bags on weirs)